DETAILED ACTION

1. This Office Action incorporates an Examiner's Amendment and Reasons For Allowance.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2009 has been entered.

3. The Applicant has canceled claim(s) 1, 6, 7, 10, 12, and 40.

4. The application has pending claim(s) 2-5, 8-9, 11, and 13-16.

5. Applicant's arguments [*with regards to the claim amendments*], see "Claim 2 relates to an image processing device ..." in page 22 through "Litwiller, however, only discloses ..." in page 24, filed 10/26/2009, with respect to claims 2-5, 8-9, 11, and 13-16 have been fully considered and are persuasive. The 35 U.S.C. 103(a) rejections of claims 2-5, 8-9, 11, and 13-16 has been withdrawn.

EXAMINER'S AMENDMENT

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. WeiWei Y. Stiltner (Reg. No. 62,979) on December 16, 2009.

The application has been amended as follows:

For the claims on pages 2-8 of the Applicant's Request for Continued Examination (RCE) dated 10/26/2009:

1. Please further amend claims 2-5 as shown by the attached pages.

Claim 2. (Currently Amended) An image processing device, comprising:

a region extraction unit for separating and extracting a character region, a graphic region and a photograph region from image data;

a region compression unit for performing a compression process for the image data in each region extracted by said region extraction unit;

a region synthesis unit for synthesizing the image data of the regions compressed by said region compression unit;

a display;

a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and

a compression method selection unit for selecting from a plurality of compression ~~modes~~ methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region;

said region compression unit using, when a speed preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest processing speed to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region, and

said region compression unit performing the compression process for the image data of each region using the compression method selected for the region by said compression method selection unit.

Claim 3. (Currently Amended) An image processing device, comprising:

a region extraction unit for separating and extracting a character region, a graphic region and a photograph region from image data;

a region compression unit for performing a compression process for the image data in each region extracted by said region extraction unit;

a region synthesis unit for synthesizing the image data of the regions compressed by said region compression unit;

a display;

a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and

a compression method selection unit for selecting from a plurality of compression ~~modes~~ methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region;

said region compression unit using, when a picture quality preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a least picture

quality deterioration to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region; and

said region compression unit performing the compression process for the image data of each region using the compression method selected for the region by said compression method selection unit.

Claim 4. (Currently Amended) An image processing device, comprising:

a region extraction unit for separating and extracting a character region, a graphic region and a photograph region from image data;

a region compression unit for performing a compression process for the image data in each region extracted by said region extraction unit;

a region synthesis unit for synthesizing the image data of the regions compressed by said region compression unit;

a display;

a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and

a compression method selection unit for selecting from a plurality of compression ~~modes~~ methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit

displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region;

said region compression unit using, when a size preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest compression ratio to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region; and

said region compression unit performing the compression process for the image data of each region using the compression method selected for the region by said compression method selection unit.

Claim 5. (Currently Amended) An image processing device, comprising:

a region extraction unit for separating and extracting a character region, a graphic region and a photograph region from image data;

a region compression unit for performing a compression process for the image data in each region extracted by said region extraction unit;

a region synthesis unit for synthesizing the image data of the regions compressed by said region compression unit;

a display;

a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes;

a compression method selection unit for selecting from a plurality of compression ~~modes~~ methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region;

said region compression unit using, when a speed preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest processing speed to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region,

said region compression unit using, when a picture quality preference mode is set at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region which exhibits a least picture quality deterioration to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region, ~~and~~

said region compression unit using, when a size preference mode is set at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region which exhibits a highest compression ratio to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region; and

said region compression unit performing the compression process for the image data of each region using the compression method selected for the region by said compression method selection unit.

REASONS FOR ALLOWANCE

7. The following is an examiner's statement of reasons for allowance:

Claims 2-5, 8-9, 11, and 13-16 (now renumbered as 1-11, for issue) are allowed.

Independent claims 2 (now renumbered as claim 1, for issue), 8 (now renumbered as claim 5, for issue), and 13 (now renumbered as claim 8, for issue) *respectively* recite the limitations of: a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and a compression method selection unit for selecting from a plurality of compression methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region; said region compression unit using, when a speed preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest processing speed to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of

compression methods, wherein each of the plurality of compression methods is designated for the type of region.

Independent claims 3 (now renumbered as claim 2, for issue), 9 (now renumbered as claim 6, for issue), and 14 (now renumbered as claim 9, for issue) *respectively* recite the limitations of: a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and a compression method selection unit for selecting from a plurality of compression methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region; said region compression unit using, when a picture quality preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a least picture quality deterioration to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region.

Independent claims 4 (now renumbered as claim 3, for issue) and 15 (now renumbered as claim 10, for issue) *respectively* recite the limitations of: a compression process mode setting unit, said compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; and a compression method selection unit for selecting from a plurality of compression methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region; said region compression unit using, when a size preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest compression ratio to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among a plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region.

Independent claims 5 (now renumbered as claim 4, for issue), 11 (now renumbered as claim 7, for issue), and 16 (now renumbered as claim 11, for issue) *respectively* recite the limitations of: a compression process mode setting unit, said

compression process mode setting unit displays a plurality of compression process modes on the display, enabling a user to select one of the plurality of compression process modes; a compression method selection unit for selecting from a plurality of compression methods, one of the plurality of compression methods for each region for the compression process to be performed for each region, wherein the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from the plurality of compression methods, and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region; said region compression unit using, when a speed preference mode is set at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region which exhibits a highest processing speed to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region, said region compression unit using, when a picture quality preference mode is set at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region which exhibits a least picture quality deterioration to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of

the plurality of compression methods is designated for the type of region, said region compression unit using, when a size preference mode is set at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region which exhibits a highest compression ratio to perform the compression process for the individual region, wherein, for each type of region, the designated compression method is selected from among the plurality of compression methods, wherein each of the plurality of compression methods is designated for the type of region.

The combination of these features as cited in the claims in combination with the other limitations of the claims are neither disclosed nor suggested by the prior art of record.

The closest reference Gentile (US 5,949,968, as applied in previous Office Action) discloses selecting one compression mechanism from a plurality of compression mechanisms for each of the regions according to its region type. However, Gentile does not teach the limitations cited above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bernard Krasnic/
December 16, 2009

/Aaron W Carter/
Primary Examiner, Art Unit 2624